



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/535,058

05/13/2005

Herfried Karl Wiczorek

DE 020240

9416

24737

7590

01/19/2007

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

THOMAS, COURTNEY D

ART UNIT

PAPER NUMBER

2882

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

01/19/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/535,058

Applicant(s)

WIECZOREK, HERFRIED KARL

Examiner

Courtney Thomas

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

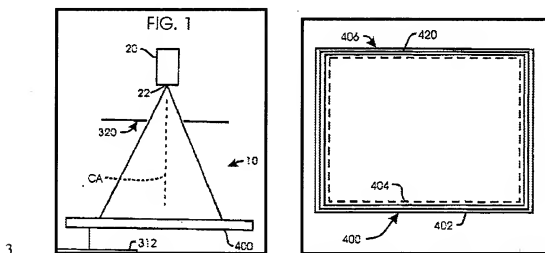
#### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Vafi et al. (U.S. Patent Application Publication 2002/0181661).



**Figs. 1 & 2 – X-ray Apparatus – U.S. Patent Application Publication 2002/0181661 to Vafi et al.**

4. As per claims 1 and 4, Vafi et al. disclose an X-ray apparatus comprising an X-ray source (20) and detector (400); the detector including a photoconductor (not shown above - treated as a photosensitive element such as a photodiode), readout elements and an output circuit (not shown above), wherein a central group of readout elements (404) is located in a central region and a peripheral group of readout elements (402) located in a peripheral region which surrounds the central region (see Fig. 2 above); the X-ray apparatus being provided with a

selection system (320) to select the central group of readout elements so as to supply pixel signals from the central group of readout elements to the output circuit (see Abstract and respective portions of the specification).

*Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 3 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vafi et al. (U.S. Patent Application Publication 2002/0181661) in view of Gohn et al. (U.S. Patent Application Publication 2001/0005409).

7. **As per claims 2, 3 and 6**, Vafi et al. disclose an X-ray apparatus as recited in claim 1, but do not explicitly teach a) a selection system including an X-ray shielding member that shields the peripheral region of the photoconductor from incident X-ray radiation; b) wherein the collimator comprises an X-ray absorbing member which is spatially registered with the peripheral region of the photoconductor and c) the selection system electrically isolates the peripheral group of readout elements from the output circuit.

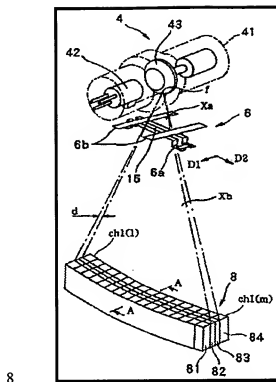


Figure 3 – X-ray Apparatus – U.S. patent Application Publication 2001/0005409 to Gohn et al.

9. Gohn et al. disclose a system comprising a selection system (6) including an X-ray shielding member that shields the peripheral region of a photoconductor (8) from incident X-ray radiation (Fig. 3 above), wherein a collimator (6a, 6b) comprises an X-ray absorbing member which is spatially registered with the peripheral region of the photoconductor (para. [0034]) and the selection system (6) electrically isolates the peripheral group of readout elements from the output circuit (see Fig.3 above).

10. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Vafi et al. such that it incorporated the aforementioned selection system. One would have been motivated to make such a modification for the purpose of ensuring irradiation of only the central regions of a detector for imaging, as suggested by Gohn et al. (see Fig. 3 above).

11. **As per claim 5**, Vafi et al. as modified above, do not explicitly disclose electrodes of readout elements of the peripheral group being smaller sized than collecting electrodes of the readout elements of the central group. It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the apparatus of Vafi et al. such that it incorporated electrodes of readout elements of the peripheral group being smaller sized than collecting electrodes of the readout elements of the central group. One would have been motivated to make such a modification for the purpose of enhancing signal readout of the central detection array while minimizing the influence of the shaded peripheral group as suggested by Gohn et al. (see Fig. 3 above).

12. **As per claims 7-8**, Vafi et al. as modified above, do not explicitly disclose the photoconductor being of continuous semiconductor layer, including a plurality of crystalline semiconductor elements, wherein the semiconductor layer contains photoconducting material selected from the group consisting Cadmium Zinc Telluride (CdZnTe) or CZT, Mercury Iodide (HgI<sub>2</sub>), or Lead Oxide (PbO). It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the apparatus of Vafi et al. such that it incorporated the aforementioned limitations. One would have been motivated to make such a modification for the purpose of providing a detection scheme which enabled the direct readout of incident radiation, as is currently practiced in the X-ray imaging art.

***Response to Arguments***

13. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Courtney Thomas whose telephone number is (571) 272-2496. The examiner can normally be reached on M - F (9 am - 5 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571) 272 2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*Courtney Thomas*  
Courtney Thomas  
Primary Examiner  
Art Unit 2882